PUBLIC SERVICE COMMISSION Mark David Goss

Mark David Goss mdgoss@gosssamfordlaw.com (859) 368-7740

March 20, 2013

Mr. Jeffrey Derouen Executive Director Kentucky Public Service Commission P.O. Box 615 211 Sower Boulevard Frankfort, KY 40602

Re: In the Matter of: Consideration of the Implementation of Smartgrid

and Smart Meter Technologies, Case No. 2012-00428

Dear Mr. Derouen:

Please find enclosed for filing with the Commission in the above-referenced case an original and fourteen (14) copies of the Responses of South Kentucky Rural Electric Cooperative Corporation to the Commission Staff's First Request for Information dated February 27, 2013, and to the Attorney General's Initial Requests for Information, also dated February 27, 2013.

Please let me know should you have any questions.

Sincerely yours,

Mark David Goss

Enclosures

cc: Counsel of Record

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BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2013 CONSIDERATION OF IMPLEMENTATION) CASE NO. OF SMART GRID AND SMART METER TECHNOLOGIES) 2012-00428

RESPONSES TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION TO SOUTH KENTUCKY RURAL ELECTRIC COOPERATIVE CORPORATION DATED FEBRUARY 27, 2013

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2013 CONSIDERATION OF IMPLEMENTATION)	CASE NO.
OF SMART GRID AND SMART METER TECHNOLOGIES)	2012-00428

CERTIFICATE

STATE OF KENTUCKY)
COUNTY OF PULASKI)

Jeff Greer, being duly sworn, states that he has supervised the preparation of the Responses of South Kentucky Rural Electric Cooperative Corporation, to the Public Service Commission Staff's First Request for Information in the above-referenced case dated February 27, 2013, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this ________ of March, 2013.

My commission expires: 12/2/2/2013

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

2013 CONSIDERATION OF IMPLEMENTATION)	CASE NO.
OF SMART GRID AND SMART METER TECHNOLOGIES)	2012-00428

CERTIFICATE

STATE OF KENTUCKY)
COUNTY OF PULASKI)

Joe Langdon, being duly sworn, states that he has supervised the preparation of the Responses of South Kentucky Rural Electric Cooperative Corporation, to the Public Service Commission Staff's First Request for Information in the above-referenced case dated February 27, 2013, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this <u>20</u> of March, 2013.

Subscribed and sworn before me on this <u>20</u> of March, 2013.

Subscribed and sworn before me on this <u>20</u> of March, 2013.

My commission expires: 12/2/2013

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

COUNTY OF PULASKI

2013 CONSIDERATION OF IMPLEMENTATION)	CASE NO.
OF SMART GRID AND SMART METER TECHNOLOGIES)	2012-00428
CERTIFICATE		
STATE OF KENTUCKY)		

Dennis Holt, being duly sworn, states that he has supervised the preparation of the Responses of South Kentucky Rural Electric Cooperative Corporation, to the Public Service Commission Staff's First Request for Information in the above-referenced case dated February 27, 2013, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this <u>35</u> of March, 2013.

Notary Public

My commission expires: 12/2/2013

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CONSIDERATION OF IMPLEMENTATION

OF SMART GRID AND SMART METER TECHNOLOGIES

RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

98. With regard to calendar years 2007 through 2012, identify and discuss what Smart Grid and/or Smart Meter initiatives the utility implemented. The discussion should include but not be limited to the reasons why each initiative qualifies as a Smart Grid and/or Smart Metering initiative; the date of installation; the total cost of installation; and any benefits resulting from the initiatives, quantifiable or otherwise, received by both the utility and the customers.

Witness: Dennis Holt

Response: As a recipient of a federal Department of Energy Smart Grid Initiative Grant, South Kentucky RECC installed an AMI system beginning in March of 2010. The meter installation was completed in late 2012. The AMI (TWACS) system is a 2-way communication system that allows remote disconnects, usage data through our meter data management system and web portal, on-demand meter reads, and daily meter reading. The total cost of this project was \$19.5 million, with \$9.5 million being funded by DOE.

This project has been a win-win for South Kentucky and its' members. We have, and will continue, to save all meter reading cost. Also, over 17,000 truck rolls have been avoided to date related to remote disconnects; and many more thousand truck rolls have been saved related to on-demand meter reads for connects and disconnects. Other benefits include theft detections, voltage verification at the meter, and outage restoration verification.

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99. With regard to calendar years 2013 through 2018, identify and discuss what additional Smart Grid and/or Smart Meter initiatives the utility has forecasted to be implemented. The discussion should include but not be limited to why each forecasted initiative qualifies as a Smart Grid and/or Smart Metering initiative; the forecasted date of installation; the forecasted total cost of installation; and any forecasted benefits to result from the initiatives, quantifiable or otherwise, received by both the utility and the customers.

Witness: Dennis Holt

Response: South Kentucky RECC does not have any further Smart Grid Initiatives planned at this time, but we are continually investigating possible projects like VAR control, and distribution automation.



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100. With regard to DA Smart Grid Initiatives provide the following:

Witness: Dennis Holt

(a) the number of DA systems installed as of December 31, 2012, along with the associated benefits realized.

Response: 0

(b) the number of DA systems to be installed in the next five years.

Response: 0

(c) the total number of DA systems to be installed when the DA system is completely deployed.

Response: 0



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RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

101. With regard to Volt/VAR Optimization, provide the following:

Witness: Dennis Holt

(a). the number of Volt/VAR Optimization systems installed as of December 31, 2012, along with the associated benefits realized.

Response: 0

(b). the number of Volt/VAR Optimization systems to be installed in the next five years, along with the forecasted in-service date.

Response: 0

(c). the total number of Volt/VAR Optimization systems to be installed when the Volt/VAR Optimization system is completely deployed.

Response: 0

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102. With regard to Supervisory Control and Data Acquisition ("SCADA") Smart Grid initiatives, provide the following:

Witness: Dennis Holt

(a). the number of SCADA systems installed as of December 31, 2012, along with the associated benefits realized.

Response: South Kentucky RECC's SCADA system was originally installed in 1994, but has been upgraded twice and most recently in July 2011. The system gives us an overview of the 40 substations on our system, along with data from the equipment in each substation. We use it daily to place feeders on "one-shot" for our crews to work on the lines safely.

the number of SCADA systems to be installed in the next five years, along with the (b). forecasted in service date.

Response: No additional systems are currently planned within this time frame.

the total number of SCADA systems to be installed when the SCADA system is (c). completely deployed.

Response: Currently we have 40 systems deployed with no additional systems forecasted.

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103. As it relates to Dynamic Pricing (where rates are established hourly throughout the day) Tariffs or TOU Tariffs, provide the following:

Witness: Jeff Greer

(a). the number of customers the utility has and had on these types of tariffs, identified separately by specific tariff.

Response: 0

(b). whether these customers shifted load from high-price times periods to lower-priced time periods.

Response: N/A

(c.) whether these customers consumed more, less or the same number of kWh.

Response: N/A

whether the utility reached any findings or conclusions based on its experience with (d). Customers on Dynamic Pricing and/or TOU Tariffs.

Response: N/A

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104. Describe precautions taken and/or standards developed by the utility to address concerns regarding cybersecurity and privacy issues.

Witness: Joe Langdon

Response: A combination of information security and vendor best practices, physical security, and adherence to Red Flags Rule created by the Federal Trade Commission is used to protect privacy of data and maintain cyber security.

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105. Provide a discussion and details of progress made regarding the concern raised by the utilities as it relates to the interoperability standards for Smart Grid equipment and software.

Witness: Dennis Holt

Response: Our Smart Grid AMI system is fully deployed and is interoperable with all the desired systems at South Kentucky RECC. Our systems utilize a Multispeak interface as a means to pass data from one system to another. We currently have our AMI system interfaced to our GIS/OMS and CIS.

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106. Provide a discussion concerning how the costs (investment and operating and maintenance costs) associated with the installation of Smart Grid facilities should be recovered from the ratepayers.

Witness: Jeff Greer

Response: South Kentucky RECC references the response to PSC Request #106 submitted by EKPC and adopts the response as its own.

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107. State whether the utility would favor a requirement that it report to the Commission so that the Commission is aware of the jurisdictional Smart Grid and/or Smart Meter activities within the Commonwealth. As a specific example, the requirement could order that a report be provided each September regarding the Smart Grid and/or Smart Meter activities the utility is planning to perform during the upcoming calendar year, followed by an April report of the Smart Grid and/or Smart Meter activities the utility completed the preceding calendar year.

Witness: Jeff Greer

Response: South Kentucky RECC references the response to PSC Request #107 submitted by EKPC and adopts the response as its own.

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108. State whether the utility believes KRS 278.285 is an appropriate approach to recovering the costs (investment and operation and maintenance) associated with Smart Grid investments.

Witness: Jeff Greer

Response: South Kentucky RECC references the response to PSC Request #108 submitted by EKPC and adopts the response as its own.

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109. State whether the utility believes a tracking mechanism as described beginning on page 3 of the Wathen Testimony on behalf of Duke Kentucky is an appropriate approach to recovering the costs associated with Smart Grid investments.

Witness: Jeff Greer

Response: South Kentucky RECC references the response to PSC Request #109

submitted by EKPC and adopts the response as its own.

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110. State whether the utility has commissioned a thorough DSM and Energy Efficiency ("DSM-EE") potential study for its service territory. If the response is yes, provide the results of the study. If no, explain why not.

Witness: Jeff Greer

Response: South Kentucky RECC references the response to PSC Request #110 submitted by EKPC and adopts the response as its own.

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111. Refer to the Munsey Testimony on behalf of Kentucky Power, page 10, lines 11-19 regarding the Green Button initiative. Describe the extent of your utility's participation in this industry-led effort.

Witness: Jeff Greer

Response: South Kentucky doesn't participate in the Green Button initiative. South Kentucky provides members access to their electricity usage data through our customer portal using Meter Data Management software.

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RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

112. Refer to the Roush Testimony on behalf of Kentucky Power, DMR Exhibit 1. Provide a similar exhibit containing a list of time-differentiated rates available to your customers.

Witness: Jeff Greer

Response: While South Kentucky has Demand Side Management and Direct Load Control programs, we offer two time-differentiated rates to our customers: Schedule A Residential Marketing rate and the Schedule B Marketing rate. These rates were established in Case No. 2011-00096.



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RESPONSE TO COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

113. Provide a description of the type of meters (mechanical, electro- mechanical, AMR (one-way communication), AMI (two-way communication) currently used by the utility. Include in the description the reasons the current meters were chosen and any plans to move to a different type of metering configuration.

Witness: Dennis Holt

Response: South Kentucky uses an AMI (two-way communication) meter at each Member's location. We chose a GE meter because the data available and features offered were the best fit for South Kentucky's needs.

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114. If either AMR or AMI metering is in use, state whether the utility has received any customer complaints concerning those meters. If the response is yes, provide the following:

Witness: Dennis Holt

(a). the number of complaints, separated by gas and electric if a combination utility, along with the total number of customers served.

Response: South Kentucky has received approximately 10 member inquiries as to the safety/privacy of the new AMI meters. We serve approximately 68,000 members.

(b). how the complaints were addressed by the utility.

Response: The members were given an explanation of how the meter works, outage notification features, voltage readings and how the meter communicates back to our office. They were assured that the information being communicated was only electrical usage.

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- (c.). a detailed explanation as to whether customers should have the ability to opt out of using either AMR or AMI metering.
 - **Response:** South Kentucky does not believe an opt out option is necessary.
 - Since our system uses power line carrier vs. Radio Frequency, and the benefits of the meters are explained in our response to PSC Question 114b, our members have been appeared once they learned these facts.
 - (d). If customers were to be given the opportunity to opt out of using either AMR or AMI metering, provide:
 - i. an explanation as to whether the utility should establish a monthly manual metering reading tariff or charge applied to the opt-out customers to recover the costs associated with manually reading the non-AMR or -AMI accounts.

Response: South Kentucky would request a monthly manual meter reading fee to cover the expense of rolling a truck and personnel to read the meter each month. Without such fee, the membership would be subsidizing these few that wish to have manual reads.

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ii. an explanation as to whether these opt-out customers could still receive benefit from the utility using either AMR or AMI metering.

Response: The members that opt out would not receive the benefits of AMI data like the monthly usage information.

iii. an explanation addressing the point at which opt-out customers, either in terms of number of customers or a percent of customers, affect the benefits of the utility using either the AMR or AMI metering.

Response: We estimate that a member opt-out of 0.5% or higher would affect our accuracy, and hence, the benefits of AMI metering. Any number of opt-out members will diminish the benefits of AMR or AMI to the utility and its members.

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115. In testimony, each utility cited cyber-security as an area of concern related to the implementation of Smart Grid technologies. Provide and describe your company's policy regarding cyber-security or the standard your company has adopted governing cyber-security. If your company has not adopted any policy or standard, identify and describe any industry or nationally recognized standards or guidelines that you may be aware of that the Commission should consider relating to cyber-security issues and concerns.

Witness: Joe Langdon

Response: Our policy takes an information security approach that leverages industry standard tools and best practices throughout the lifecycle of the product. We have implemented those systems and practices necessary to protect the confidentiality, integrity, and availability of all the data that is generated as part of our electric services. Our cyber security plan was developed in coordination with our smart grid vendor and was also reviewed by the Department of Energy prior to our smart metering project.

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The following were referred to when developing our cyber security plan:

- Federal information processing Standard (FIPS) 200, Minimum Security Requirements for Federal Information and Information Systems
- FIPS 199, Standards for Security Categorization of Federal Information and Information Systems
- North American Electric Reliability Corporation (NERC) Security Guidelines for the Electricity Sector: Vulnerability and Risk Assessment
- National Infrastructure Protection Plan
- North American Electric Reliability Corporation Critical Infrastructure Protection (NERC/CIP) 002, 003-009
- AMI-SEC System Security Requirements NIST Special Publications 800-53, 800-82, 800-39

The following is a summary of South Kentucky's Cyber Security Plan:

SKRECC advocates and supports an information security approach that leverages industry standard tools and best practices throughout the product lifecycle. We have implemented those systems and practices necessary to protect the confidentiality, integrity, and availability of all the data that is generated as part of our electric services and will continue to use this approach.

Security needs vary by location and installation. Consequently, the information security strategy employed at each location must be customized to address the environmental, risk, and threat factors that are unique to that location.

SKRECC's view of the information security lifecycle is that it begins when a project is conceived, and it continues for the duration of every installation and will be ongoing after a project is completed. When some new change is introduced into the environment or a new threat develops cyber security practices and

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protections must be reevaluated for effectiveness. The environment will be evaluated on a continual basis for potential threats. When threats are found ways to eliminate or mitigate the threat will be implemented.

SKRECC has established and will continue to maintain internal controls for cyber security including barring employees from installing, copying, or downloading software unless formally authorized.

SKRECC abides by and will continue to abide by best practices recommended by hardware and software vendors and commonly accepted network security best practices (for example, software patching, up to date antivirus, network segmentation, only-as-needed access to resources, etc.). Hardware and software vendors will be used as resources in maintaining security on an ongoing basis. When selecting hardware and software vendors the built in security of their product will be an integral part of the evaluation process.

Communications between resources on the network segment and outside the network segment will take place via secure communications methods.

In addition to various routing, firewall, patching, passwords, and other digital measures physical security measures and monitoring will also be introduced into the environment and maintained as appropriate.

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116. If not previously addressed, provide a detailed discussion of whether deployment of smart meters should allow for an opt-out provision.

Witness: Dennis Holt

Response: South Kentucky currently has 100% participation in our AMI deployment and feels that maximum participation is necessary to justify the investment in the system. If an opt out option was available and a large portion of the membership decided to do so it would defeat the purpose of installing the system. If an opt out provision is allowed it should permit South Kentucky to recover all of the costs associated for the member to opt out. This would include the cost of the monthly trip to read the electric meter as well as any additional trips which became necessary due to the member not having a smart meter. For example, we can now read the voltage at a members home; we can ping the meter to verify the account is on or off; we can remotely connect and or disconnect the account without dispatching a truck. If we had to roll a truck to connect/disconnect/check voltage/verify an account was on or any other issue the AMI system can resolve remotely we feel we should be able to recover our costs for each of these trips.